AMENDMENT UNDER 37 C.F.R. 1.116 - EXPEDITED PROCEDURE

Serial Number: 10/010524

Filing Date: December 7, 2001

Title: ENABLING SPARSE REFRESH TECHNIQUES WITH CACHE-LIKE STRUCTURES THAT SNOOP FRAME BUFFER WRITES

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Dkt: 884.607US1 (INTEL)

Assignee: Intel Corporation

REMARKS

This responds to the Office Action mailed on January 16, 2004.

Claims 1, 9, 12, 15, 18, 23, and 26 are amended, no claims are added, and no claims are canceled; as a result, claims 1-30 are now pending in this application. Applicants note that the amendments to the claims do not add new matter and are made to place the present application in condition for allowance. Moreover, Applicants do not believe that the amendments necessitate any new searching. Therefore, Applicants believe that the amendments are appropriate and respectfully request that the Examiner enter the amendments.

§102 Rejection of the Claims

The Examiner has purported to levy an anticipation rejection under 35 USC § 102(b) for claims 1, 3-9 and 11. However, it is clear from the rejection that the Examiner intended an obviousness rejection under 35 USC § 103(a). Claims cannot be anticipated by a combination of multiple references, claims can only be anticipated by a single reference. *Emphasis added*. Thus, the Examiner's legally stated reason for the anticipation rejections cannot be supported under anticipation law. Accordingly, Applicants assume that the Examiner's rejection of claims 1, 3-9, and 11 were rejected based on the law of obviousness under 35 USC § 103(a). A discussion of these rejections is listed below.

§103 Rejection of the Claims

Claims 1, 3-9 and 11 were rejected under 35 USC § 103(a) as being obvious by Greene et al. (U.S. 5,670,993) in view of Ohtsuka et al. (U.S. 6,570,802). It is of course fundamental that in order to sustain an obviousness rejection that each and every step or element in the rejected claims must be taught or suggested in the cited references. Here, the regions taught and disclosed in Ohtsuka are not capable of being configured to desired shapes as is now recited in Applicants' amended independent claims.

More specifically, Ohtsuka is directed towards semiconductor memory devices that perform partial or full refreshes of display information for purposes of conserving power within the memory devices. The regions identified within Ohtsuka are groupings of contiguous

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memory cells. This makes sense because Ohtsuka is directed toward memory devices (e.g., physical devices). The regions in Ohtsuka are not capable of being configured into a variety of shapes, which is now recited in Applicants' amended independent claims 1 and 9.

Regions are fixed hardware in Ohtsuka, these fixed regions are not logical locations associated with a configurable frame buffer. Consequently, the regions are not manipulated and configured in manners that can be achieved in Applicants' invention. For example, a configured shape permits regions to identify locations that are not contiguous with one another. This is not possible with the teachings presented in Ohtsuka, since in Ohtsuka regions are fixed hardware, namely specific memory cells.

Therefore, Applicants respectfully request that the rejections with respect to independent claims 1 and 9 be withdrawn.

Claims 2, 10, 12, 15-17 and 26-30 were rejected under 35 USC § 103(a) as being unpatentable over Greene et al. and Ohtsuka et al. in view of Perego (U.S. 5,835,082). Again, to sustain an obviousness rejection each and every step or element in the rejected claims must be taught or suggested in the cited references.

Claims 2 and 10 are dependent claims of amended independent claims 1 and 9, respectively. Correspondingly, based on the comments and amendments presented above with respect to claims 1 and 9, Applicants assert that the rejections of these claims should be withdrawn.

With respect to independent claims 12, 15, and 26, Applicants again note that the Examiner is relying on the Ohtsuka reference for purposes of maintaining these rejections. Applicants' amended independent claims 12, 15, and 26 now recite a region or regions that can be configured into a variety of shapes. This clearly demonstrates that the regions in Applicants' invention are logical and not physical memory cells that are required in Ohtsuka. As a result, Ohtsuka cannot logically configure and assemble a region in the manners that are positively recited in Applicants' amended independent claims 12, 15, and 26. Thus, Applicants respectfully request that the rejections with respect to claims 12, 15, and 26 be withdrawn.

Claims 13, 14 and 18-22 were also rejected under 35 USC § 103(a) as being unpatentable over Greene et al. and Ohtsuka et al. in view of Perego, and in further view of Tsutsumi (U.S.

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5,333,016). To sustain obviousness, each and every element or step in the rejected claims must be taught or suggested in the cited references.

Here, claims 13 and 14 are dependent from Applicants' amended independent claim 15. Thus, for the reasons stated above with respect to Applicants' amended independent claim 15, the rejections of claims 13 and 14 should be withdrawn.

With respect to Applicants' amended independent claim 18, Applicants note that Ohtsuka is not capable permitting its regions to be configured into various shapes, since regions in Ohtsuka are defined as physical devices (e.g., memory cells) and not frame buffers, which are logically defined and used in Applicants' invention. Thus, Applicants assert the rejections with respect to independent claim 18 should be withdrawn.

Claim 23 was also rejected under 35 USC § 103(a) as being unpatentable over Greene et al. and Ohtsuka et al. in view of Perego and Thacker et al. (U.S. 5,276,851). Applicants have amended independent claim 23 to recite regions that have shapes that are configurable. The Examiner continues to rely on Ohtsuka for this limitation and Applicants have demonstrated that the regions in Ohtsuka are physical devices that cannot be configured or arranged to achieve a variety of shapes, as is recited in Applicants' amended independent claim 23. Therefore, Applicants respectfully request that the rejection with respect to claim 23 be withdrawn.

Claim 24 was also rejected under 35 USC § 103(a) as being unpatentable over Greene et al. in view of Perego and Thacker et al., and further in view of Tsutsumi. Claim 24 is dependent from amended independent claim 23. Accordingly, for the amendments and remarks presented above with respect to independent claim 23, the rejection with respect to claim 24 should be withdrawn.

Claim 25 was also rejected under 35 USC § 103(a) as being unpatentable over Greene et al. in view of Perego, Thacker et al. and Tsutsumi, and in further view of Bell (U.S. 4,958,378). Claim 25 is dependent from amended independent claim 23. Accordingly, for the amendments and remarks presented above with respect to independent claim 23, the rejection with respect to claim 25 should be withdrawn.

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Conclusion

Applicants respectfully submit that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney, Joseph Mehrle at (513) 942-0224, or Applicants' below-named representative at (612) 349-9592 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

THOMAS E. WILLIS ET AL.

By their Representatives,

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Date March 16, 2004

Reg. No. 42,858

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this day of March 2004.

Signature

Name